3.1 Introduction

This chapter describes the goals and objectives which form the basis for this TMP Update.

3.2 Background: 1989 TMP

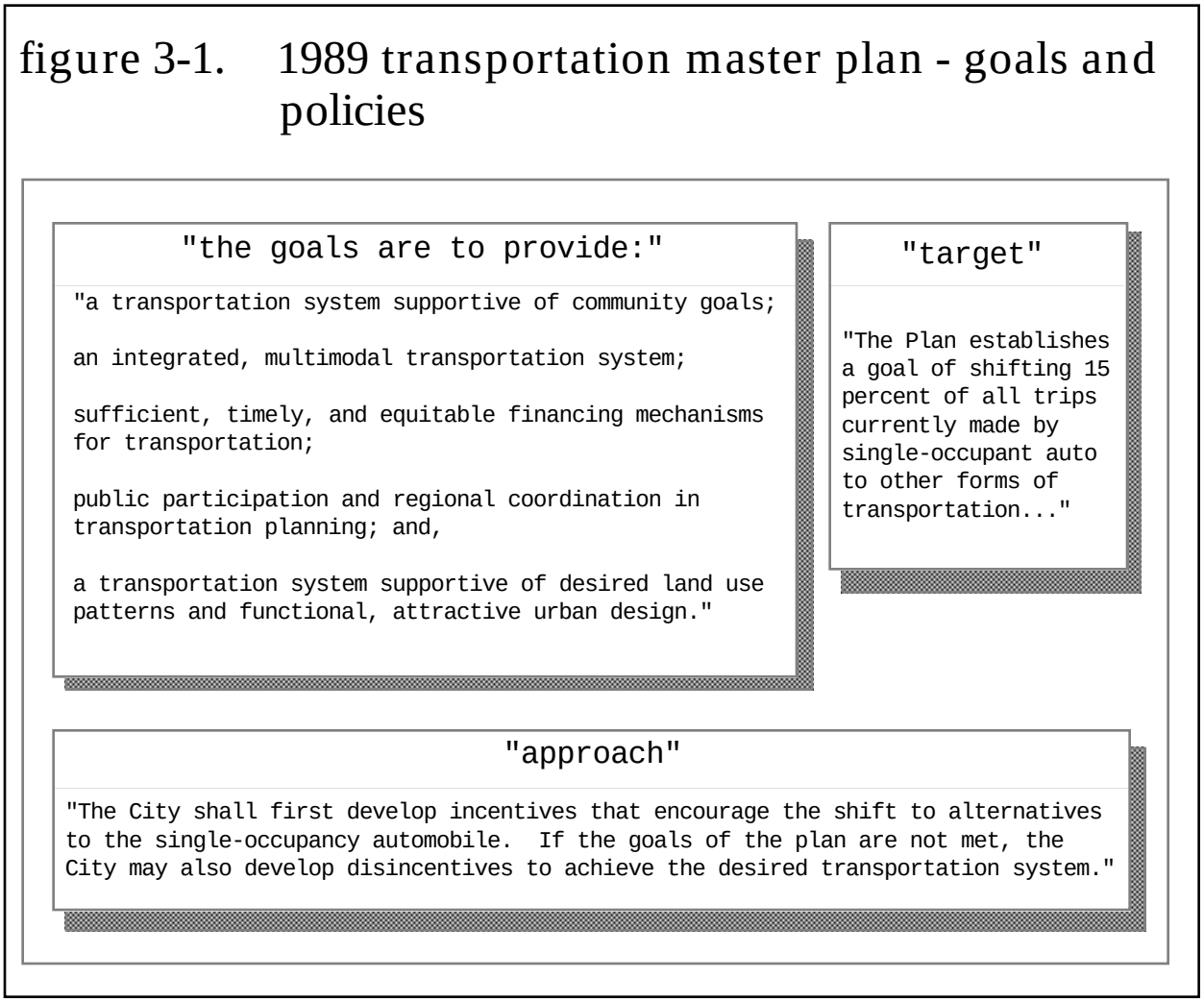
Boulder's Transportation Master Plan, adopted by City Council in 1989, was a ground-breaking effort which has since been copied by other cities and agencies around the US. The primary policy components of this plan are summarized in figure 3-1.

One of the most important (and most remembered) elements of the 1989 TMP was the prescription for a 15% shift in daily trips out of "single-occupant vehicles" (SOV).

In other words, the City decided that - by the year 2010 - 15% of local daily trips should be shifted from SOV to transit, bicycling, walking and multi-occupant auto. This concept has, since 1989, become one of the central ideas in the Boulder transportation program.

The 1989 TMP, however, was prepared before there was actual data about travel behavior in Boulder. Instead, data from the DRCOG traffic modeling process was used. Because traffic models ignore non-motorized trips, walking and biking were greatly underestimated.

figure 3-1. 1989 transportation master plan - goals and policies



In recognition of this, the 1989 TMP called for monitoring and reporting of travel behavior - which has been done through the biennial resident travel diary and employee survey. These studies have allowed the City to gain a better understanding of actual local travel behavior.

3.3 Our Vision: Basis for TMP Update

The City of Boulder surveyed its citizens extensively during development of the Integrated Planning Project in 1993. That research provides valuable insights into how the citizenry feels about transportation in the context of other community issues.

When asked to compare transportation as a planning issue with three other planning issues (environment, affordable housing, and economy), transportation consistently finished last, receiving the top ranking from only about one in ten of those surveyed. Environment was by far the highest priority, followed by affordable housing, economy and transportation in that order.

At the same time, when asked to rank community values in a Sunday paper clip out survey, "less auto congestion" received rankings from 61% of those surveyed, surpassed only by "more open space/natural areas." Another highly ranked community value was "better bus/alternative transportation system." And when asked to rank three potential transportation improvement choices, "improve the bus/bike/pedestrian system" ran away from the other choices, "build and widen roads for cars" and "both of the above."

Consistently, over 60% of those surveyed chose "improve the bus/bike/pedestrian system" while fewer than one in ten chose "build and widen roads for cars."

It seems apparent from this information that Boulder sees transportation as a means to an end, rather than as an end in itself. Residents value the local environment and the lifestyle it makes possible, and see traffic congestion as a threat to these values. They see "alternative modes" as desirable because they provide continued mobility without further degrading the sustainability of the community and the quality of life in our neighborhoods. They see "building more roads" as undesirable both because of the impacts and also because it would foster, rather than prevent, continued growth in vehicle traffic.

City Council discussed this vision and its implications for the Transportation Master Plan at a series of study sessions in 1994 and 1995. What emerged from those discussions was a new objective that would capture what residents were saying. This new objective, **"no growth in long term vehicle traffic,"** suggests a Boulder where motor vehicle traffic does not grow, but personal mobility continues to increase without degrading environmental values and quality of life.

Thus, in the future, there would be more and better choices for ways of getting around than there are today. Residents could choose between walking, bicycling, telecommuting and public transit for many of their trips, making them less auto dependent and increasing their range of choices. Cars would still be an important part of the picture, but the impacts of traffic on neighborhoods and commercial areas would not be allowed to get any worse.

This represents an exciting and challenging vision. Most observers of long term transportation trends would assert that traffic grows inexorably. They would ask if Boulder can really stop the steady increase in traffic and traffic congestion. On the other hand, many citizens feel this objective is not ambitious enough, noting that traffic is already bad and should be reduced to some earlier year's level.

As part of the public process for this TMP Update, the City conducted another extensive citizen survey process, using a telephone interview, a brochure questionnaire and dozens of stakeholder meetings in the community. The results of this research confirmed that, while

some residents feel the objective is too much, and others feel it is too little, a strong majority favors striving for a "no growth in traffic" future where alternative modes improve steadily and personal mobility increases.

3.4 TMP Update Goals and Objectives

The TMP Update Goals and Objectives are shown in figure 3-2 below.

The only change to the goals was to emphasize the **pedestrian mode as the primary mode**, as a means of placing increased emphasis on sustainability and quality of life issues.

The objectives are significantly different from those adopted in 1989. The objective of allowing no further growth in traffic has been added, as has the 25% SOV objective which is required as a result.

Figure 3-3 on the next page includes a 1990 column which recreates the actual situation at the time the TMP was adopted based on travel diaries and surveys. This data has also been used to evaluate progress on the 15% shift.

Since 1989, Boulder has shifted 3% of its daily SOV trips to other modes. This is equivalent to a 6% reduction in single-occupant-vehicle trips - a major accomplishment. At this rate, the City is on course for achievement of its original 1989 objective of a 15% shift away from SOV

figure 3-2. TMP update goals and objectives

2020 Goals:

- develop an integrated, multimodal transportation system **which emphasizes the role of the pedestrian mode as the primary mode of travel**;
- a transportation system supportive of community goals;
- provide sufficient, timely, and equitable financing mechanisms for transportation;
- encourage public participation and regional coordination in transportation planning; and,
- establish a transportation system supportive of desired land use patterns and functional, attractive urban design.

2020 Objectives:

- no growth in long term vehicle traffic;
- reduction in single-occupant-vehicle travel to 25% of trips;
- continuous reduction in mobile source emissions of air pollutants; and
- no more than 20% of roadways congested (at LOS F).

figure 3-3. analysis: mode share objectives

% of Daily Person Trips

	1989 TMP		Survey Data *		
	1989 estimate	2010 objective	1990 Actual	1994 Actual	2020 objective
SOV	73	-15 = 58	47	44	-19 = 25
Multi-occupant auto	23	27	24	22	29
Pedestrian	1	3	17	19	24
Bicycle			10	11	15
Transit	3	12	2	4	7
TOTAL	100	100	100	100	100

* based on resident diaries, employee surveys, traffic counts, regional origin & destination study and related sources

Original TMP SOV Reduction
"shift 15% away from SOV"
15 ÷ 73 = 21% reduction

Actual Reduction '90 - '94
3 ÷ 47 = 6% reduction

Proposed Reduction by 2020
19 ÷ 44 = 43% reduction

- original TMP objective: shift 15% of daily SOV trips to other modes by 2010
- TMP update direction: no growth in long term vehicle traffic (requires reducing single-occupant vehicle trips to 25% by 2020)

travel by 2010.
The recent trends in traffic conditions described in Chapter 2, however, mean that the long-term reduction in single-occupant-vehicle travel required to hold traffic at today's levels is greater than the 1989 target.

A 15% shift away from SOV use translates into a 21% reduction in SOV trips. In order to hold traffic at today's levels, however, it will be necessary to reduce single-occupant-vehicle trips by nearly twice that amount.

To achieve the TMP Update goal, SOV use must be reduced to about 25% of daily travel as shown in figure 3-3. This represents a significant change in travel behavior. As mentioned in section 1, there are a number of assumptions and risks inherent in the adoption of this objective. These are uncertainty as to regional growth and land use patterns, the lack of sufficient funds to meet the needs of the transportation system, and the potential lack of public support for demand management .

Clearly, this shift in travel behavior will require that safe and convenient alternatives to single-occupant-vehicle travel are in place.

This shift can be accomplished, in part, through development of a well-integrated multimodal transportation system. In addition, this shift in travel behavior may also require further promotional efforts and SOV disincentives.

Policies designed to develop an integrated multimodal transportation system are described in the modal sections of Chapter 6. Policies required to support a continued shift of daily travel away from reliance on single-occupant vehicles are described in Section 6.4 of Chapter 6.

3.5 Policy Screen

The transportation master plan update is being developed as a plan that is focused on achievement of specific goals and objectives, especially the objective of no long term growth in traffic.

While this approach can lead to success within the transportation program, it is important to make sure that the program does not become so focused and goal-driven that it overlooks broader public issues and priorities.

The criteria defined in figure 3-4 provide a "policy screen" which have been applied to the transportation policies proposed for adoption in the TMP Update to ensure that we do not lose the larger community perspective in striving to achieve transportation objectives.

These criteria were developed from input provided by three sources: the Transportation Workshop held at NOAA/NIST in February, 1995; a review of the TMP Update provided by the Chamber of Commerce; and discussions by City Council at a May, 1995 Study Session.

figure 3-4. policy screen

(1) Equity. Policies should place the burden equitably -- both in terms of cost and in terms of travel patterns. Policies which are fair geographically, demographically, and economically are more desirable than policies which impact a specific group of citizens unreasonably. This does not mean all travelers should pay exactly the same or that all geographic areas have the same responsibilities. In some cases there may be a need for compensating mechanisms.

(2) Awareness. In general, preference should be given to policies and approaches which increase community awareness and understanding of the transportation issue. One of the specific outcomes of the transportation program should be improved understanding of the role mobility plays in the community, of the effects that vehicular traffic have on the community, and of the importance of individual travel choices.

(3) Efficiency. Preference should be given to policies that maximize the existing physical transportation system (infrastructure and services) before creating anything new.

(4) Rewards. Preference should be given to policies that build in appropriate incentives and disincentives for travel behavior and personal travel choices. Policies which send the wrong signal or which reinforce inappropriate choices should be avoided.

(5) Effectiveness. Preference should be given to those policies and measures which have the greatest efficacy in meeting program objectives (e.g., reducing growth in vehicle miles traveled or reducing single-occupant-vehicle travel) at lowest cost and disruption. Policies with the highest leverage should be implemented first.

(6) Incremental. Implementation of new policies, programs and approaches should be incremental over time without sudden changes or disruptions.

3.6 Forecast Scenarios

Achieving the goals and objectives of this TMP will require strategic management of both land use development patterns and travel patterns.

In developing the TMP Update, the City examined a range of potential futures based on scenarios that incorporated alternative versions of future land use and travel patterns. These scenarios are shown in figure 3-5 on this page.

Four land use alternatives were evaluated. These are described in Chapter 4.

The timing of this TMP Update was fortunate in that the update of the land use map component of the City's Comprehensive Plan was also underway, allowing for close coordination of land use and transportation issues.

Two travel behavior alternatives were analyzed. The first (used in scenarios A and B) represents today's travel behavior combined with the anticipated increases in daily tripmaking. As would be expected, the result of this would be continued traffic growth.

The second (used in C, D and E) was derived mathematically, based on the goal of no growth in vehicular traffic. This enabled the City to test the feasibility of a "no traffic growth" objective. It turned out that this requires reducing SOV travel to 25% of daily travel as is further explained in Chapter 5.

Achieving the second travel behavior alternative (the right-hand column) would be accomplished by managing the following program elements:

- investment in alternative modes;
- incentives and marketing;
- regulatory demand management;
- urban design;
- education and enforcement;
- partnerships;
- market-based strategies; and,
- telecommuting and tele-travel.

These elements are the subject of Chapter 6.

figure 3-5. TMP forecast scenarios